

Work Order ID 100850***100850***

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May-01-13 7:30:34 AM

Item ID: D4103-1

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Step / Handle

Start Date: 4/25/13 Start Qty: 5.00

5

Cust Item ID:

Required Date: 4/30/13 Req'd Qty: 5.00

5

Customer:

Reference:

Approvals: Process Plan: MLTDate: 13-05-03

Tooling: _____ Date: _____

Run Start

NR1

QC: _____

Date: _____ SPC (Y/N): _____

Date: _____

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4103	A								
100	Cut blanks as per folio	0.00							
100									
Bandsaw	Memo	0.00							
Jeaspa Bandsaw	6.200" long								
110		0.00							
110									
HAAS 1	Memo	0.00							
HAAS CNC vertical machine #1	Mill as per dwg and Folio FA937								
	DEBURR								
120	QC2- Inspect parts off machine FAI/FAIB	0.00							
120									
QC	Memo	0.00							
Quality Control									

16SL-B-B-B1305-185SLPo13-05-185SL

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQAT: *SJT* Date: 13/06/07

QA Closed: JK Date: 13/5/21

Work Order: <u>100850</u>	DISPOSITION	AGAINST DEPARTMENT/PROCESS					
Part No. <u>D4103-1</u>	Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>		
NCR No. <u>13.2677</u>	Scrap <input checked="" type="checkbox"/>	Machining <input checked="" type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>		
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>		
	Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>			

FAULT CATEGORY

Landing Gear	General			
Bending	Bend	Grain	Ovalized	Pressure/Forced
Centre Not Concentric to O/S	BOM/Route	Hardware	Over/Under tolerance	Temperature/Cure
Cracks	Broken/Damaged	Inspection Incomplete	Part Incorrect	Weld
Crushed/Crimped	Burrs	Instructions Incomplete/Unclear	Part Lost/Missing	Wrong Stock Pulled
Cuffs	Contamination	Maintenance	Part Moved	
Heat Treat	Countersink	Mislabeled	Positioned Wrong	
Inspection Strip in Tube	Cut Too Short	Misread	Power Loss/Surge	
Ripples in Bend	Drill Holes	Offset		Other
Torque Waves in Extrusion	Drawing	Out of Calibration		
Turning Sequence	Finish	Out of Sequence		
Wave/Twist in Tube	Folio	Outside Dimensions		

Work Order ID 100850***100850***

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May-01-13 7:30:34 AM

Item ID: D4103-1**Accept*****N900040100*****Setup****Start*****NS1*****Revision ID:****Stop*****NS2*****Item Name:** Step / Handle**Start Date:** 4/25/13 **Start Qty:** 5.00***5*****Cust Item ID:****Required Date:** 4/30/13 **Req'd Qty:** 5.00***5*****Customer:****Reference:**

Approvals:	Process Plan: _____	Date: _____	Tooling: _____	Date: _____	Run	Start	*NR1*
	QC: _____	Date: _____	SPC (Y/N): _____	Date: _____	Stop	*NR2*	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* QC	QC8- Inspect parts - second check Quality Control	0.00	04/13/05/20	5	1				
140 *140* HandFinish	Chemical Conversion Coat per QSI005 4.1 Hand Finishing	0.00	5/13-5/27						
150 *150* QC	QC3- Inspect Part Finish Quality Control	0.00	13-S 27	S					

NCR: Yes / No

WORK ORDER NON-COMPLIANCE / UPDATE

DQA: Date:

QA Closed: _____ **Date:** _____

Work Order:				DISPOSITION		AGAINST DEPARTMENT/PROCESS					
				Rework <input type="checkbox"/>	Scrap <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>		
				Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>		
Part No. _____				Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Finishing <input type="checkbox"/>	Composite <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>		
NCR No. _____								Supplier <input type="checkbox"/>			
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector	
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear				General							
Bending				Bend <input type="checkbox"/>	Grain <input type="checkbox"/>			Ovalized <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>		
Centre Not Concentric to O/S				BOM/Route <input type="checkbox"/>	Hardware <input type="checkbox"/>			Over/Under tolerance <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>		
Cracks				Broken/Damaged <input type="checkbox"/>	Inspection Incomplete <input type="checkbox"/>			Part Incorrect <input type="checkbox"/>	Weld <input type="checkbox"/>		
Crushed/Crimped				Burrs <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>			Part Lost/Missing <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>		
Cuffs				Contamination <input type="checkbox"/>	Maintenance <input type="checkbox"/>			Part Moved <input type="checkbox"/>			
Heat Treat				Countersink <input type="checkbox"/>	Mislabeled <input type="checkbox"/>			Positioned Wrong <input type="checkbox"/>			
Inspection Strip in Tube				Cut Too Short <input type="checkbox"/>	Misread <input type="checkbox"/>			Power Loss/Surge <input type="checkbox"/>			
Ripples in Bend				Drill Holes <input type="checkbox"/>	Offset <input type="checkbox"/>						
Torque Waves in Extrusion				Drawing <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>						
Turning Sequence				Finish <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>						
Wave/Twist in Tube				Folio <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>						

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____			DISPOSITION		AGAINST DEPARTMENT/PROCESS						
			Rework Scrap Use-as-is Work Order Update	Skid-tube Machining Thermoforming Large Fab	Crosstube Small Fab Finishing Composite	Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier	Engineering Quality Other				
Part No. _____ NCR No. _____											
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio		<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions				<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <hr/> <hr/> <hr/>	
										<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled	
										<input type="checkbox"/> Other	

Picklist Print

May-01-13 7:30:34 AM

Page 1

Work Order ID: 100850

Parent Item: D4103-1

Parent Item Name: Step / Handle

Start Date: 4/25/13

Required Date: 4/30/13

Start Qty: 5.00

Required Qty: 5.00

Comments: IPP REV: A NEW ISSUE 10-07-01 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6B2.000X03.500 6061-T6 Bar 2.00 x 3.50		Purchased	No			100	f	8.7134	0.52	2.736842		SL 13-5-13	

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
MAT009	8.7134	
112764	1.4568	
118182	5.6739	
121660	1.5827	

125592

2.8

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS									
Part No. _____	Rework <input type="checkbox"/>	Scrap <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Machining <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>								
NCR No. _____	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>									
	Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Supplier <input type="checkbox"/>	Other <input type="checkbox"/>									
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector						
Doc/Data															
Equip/Tooling															
Operator															
Material															
Setup															
Other															
Process															
Supplier															
Training															
Unapproved															
FAULT CATEGORY															
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio				<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions		<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled			
														<input type="checkbox"/> Other	

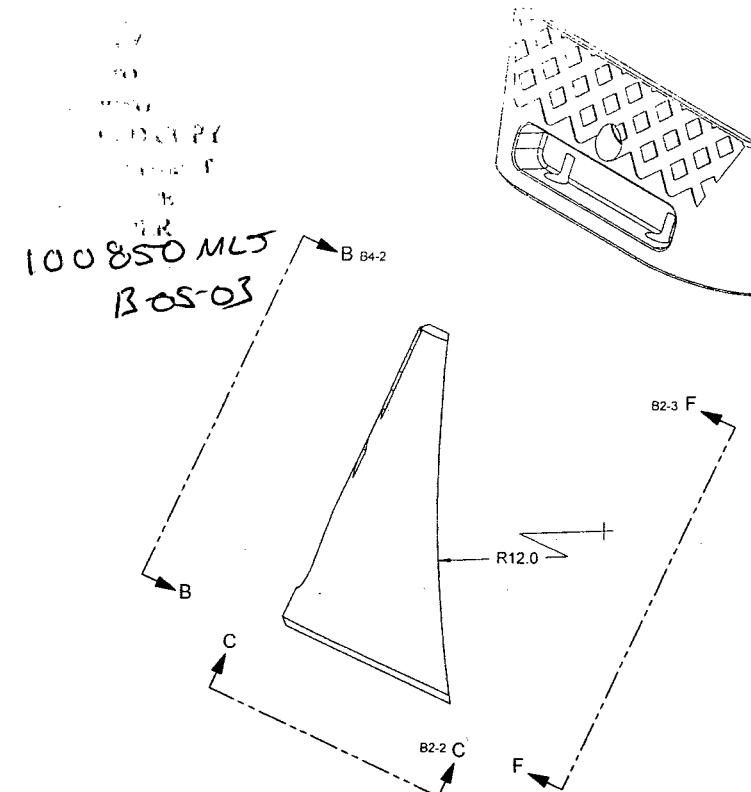
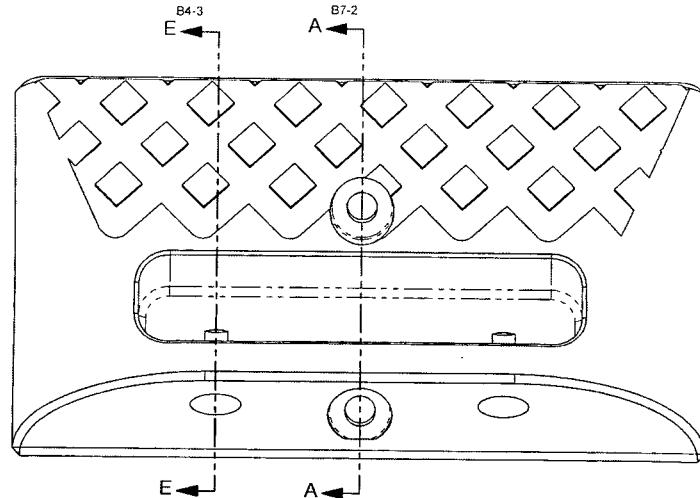
DART AEROSPACE LTD	Work Order:	100850
Description: Step/Handle	Part Number:	D4103-1
Inspection Dwg: D4103 Rev: A		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
2.93	+/-0.030	2.930	/	/	Vern	SL-10
0.37	+/-0.030	.370	/	/	-	
0.83	+/-0.030	.829	/	/	-	
.00.560	+/-0.010	.559	/	/	-	
0.06 X 45°	+/-0.030 X +/-0.5°	.06X45°	/	/	-	
0.26	+/-0.030	.265	/	/	-	
0.33	+/-0.030	.331	/	/	MIC	118-120
R0.06	+/-0.030	.060	/	/	RG	
1.78	+/-0.030	1.780	/	/	HG	
0.45	+/-0.030	.451	/	/	-	
0.33	+/-0.030	.330	/	/	MIC	118-120
0.75	+0.000/-0.030	.728	/	/	Vern	SL-10
1.66	+/-0.030	1.660	/	/	-	
0.80	+/-0.030	.785	/	/	-	
1.07	+/-0.030	1.075	/	/	-	
3.85	+/-0.030	3.850	/	/	-	
0.03 X 45°	+/-0.030 X +/-0.5°	.03X45°	/	/	-	
0.31	+/-0.030	.308	/	/	-	
0.28	+/-0.030	.281	/	/	-	
0.030 Deep	+/-0.030	.030	/	/	-	
6.00	+/-0.030	5.990	/	/	-	
R0.27	+/-0.030	.27	/	/	-	
0.56	+/-0.030	.556	/	/	-	
1.74	+/-0.030	1.750	/	/	-	
2.50	+/-0.030	2.500	/	/	-	
00.438	+0.006/-0.001	.439	/	/	-	
00.266	+0.006/-0.001	.267	/	/	-	
0.96	+/-0.030	.963	/	/	HG	
0.26	+/-0.030	.264	/	/	MIC	SL-4
0.25	+/-0.030	.244	/	/	Vern	SL-10
2.25	+/-0.030	2.250	/	/	-	
1.00	+/-0.030	1.000	/	/		
0.20	+/-0.030	.204	/	/		
0.98	+/-0.030	.980	/	/		
0.32	+/-0.030	.318	/	/		
1.25	+/-0.030	1.250	/	/		
R0.19	+/-0.030	.19	/	/		

Measured by:	SL	Audited by:	CMR	Preliminary Approval:	
Date:	13-5-17	Date:	13/05/20	Date:	

Rev	Date	Change	Revised by	Approved
A	10.10.07	New Issue	KJ	SK



D4103-1 STEP/HANDLE

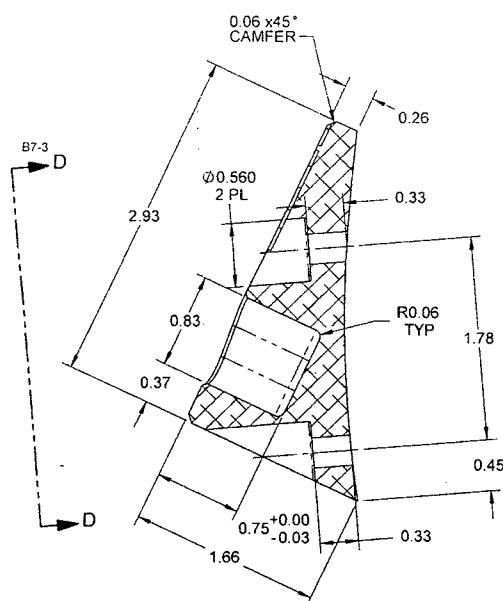
NOTES:

- 1) MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR
PER QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4103-1" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.81 lbs
- 8) MACHINE 0.28 X 0.31 GRIP 0.030 DEEP AT 45° PATTERN 0.25 APART

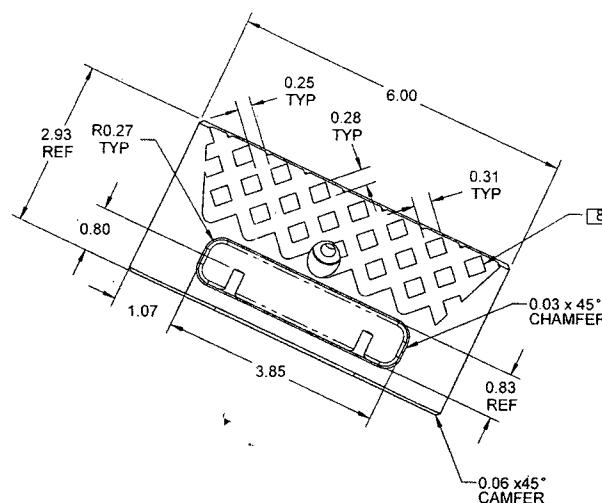
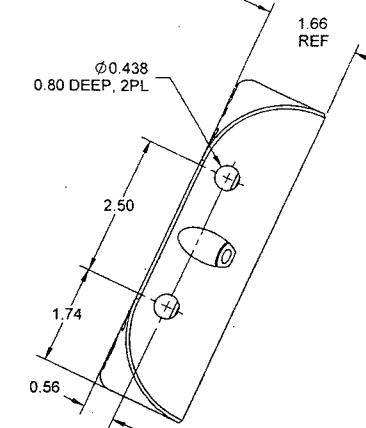
8 7 6 5 4 3 2 1

A NEW ISSUE		RF	10.05.17
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF	DRAWING NO.	REV. A
CHECKED	MM	D4103	SHEET 1 OF 3
MFG. APPR.	MM	TITLE	SCALE
APPROVED	MM	STEP/HANDLE	NTS
DE APPR.	MM	COPRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE, COPIED OR DISSEMINATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	
DATE	10.05.17		

100850



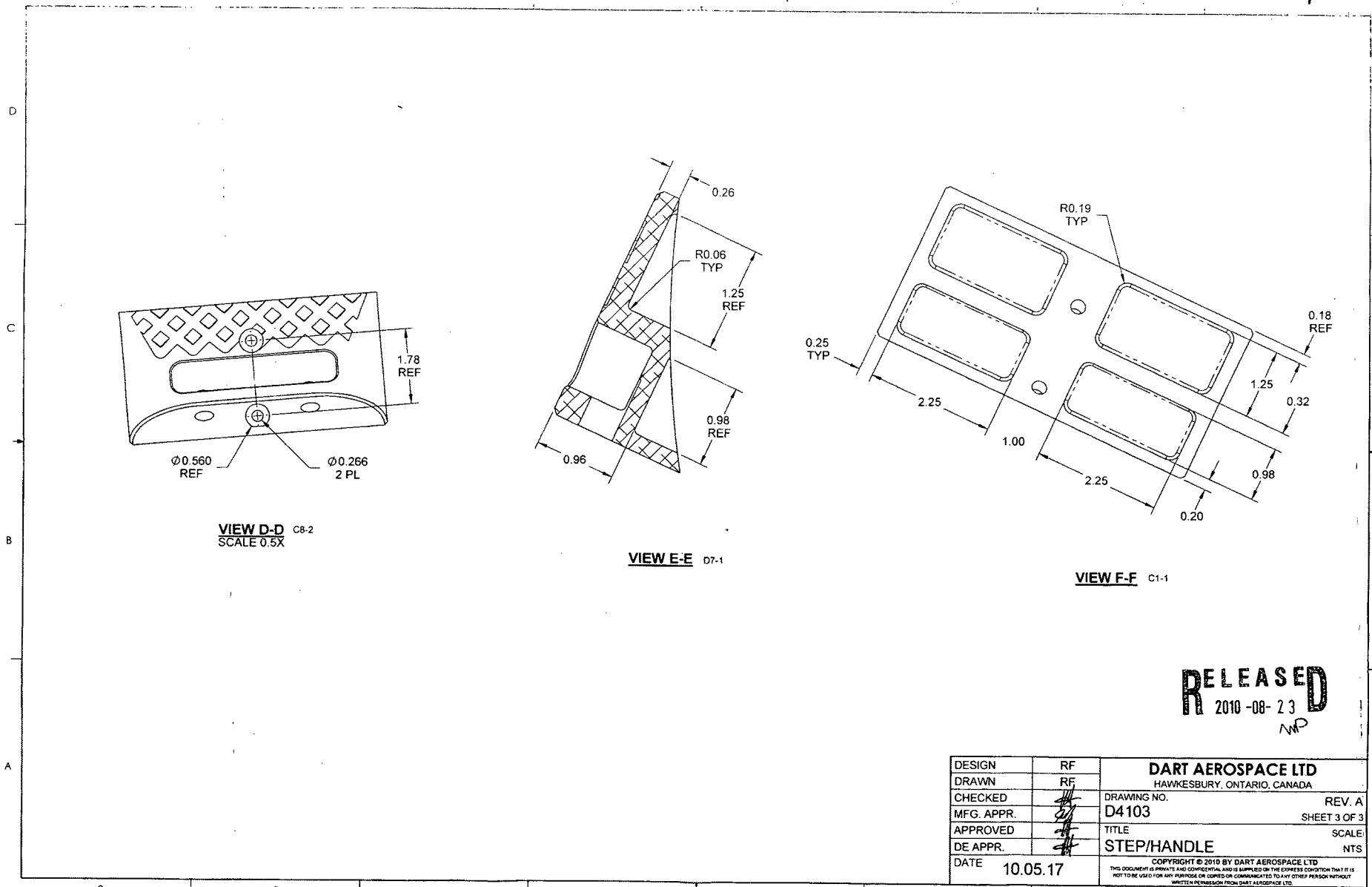
SECTION A-A D6-1

VIEW B-B D3-1
SCALE 0.5XVIEW C-C B2-1
SCALE 0.5XRELEASED
2010-08-23

DESIGN	RF	DART AEROSPACE LTD
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA
CHECKED	#	DRAWING NO.
MFG. APPR.	#	REV. A
APPROVED	#	D4103 SHEET 2 OF 3
DE APPR.	#	TITLE
DATE 10.05.17		STEP/HANDLE SCALE NTS

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100850



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